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The program of papers was as follows:

Variations of type in the Cepheid variables l Carinae and n Aquilæ as shown by the general spectrum: SEBASTIAN ALBRECHT.

A systematic search for novæ at the Harvard Observatory: S. I. BAILEY.

On the change in the period of the variable star Bailey No. 33 in the cluster M5: E. E. BARNARD. Remeasurement of Hall's star in the Pleiades: E. E. Barnard.

Variable stars in M 11: E. E. BARNARD.

On the varnishing of astronomical negatives: E. E. BARNARD,

Some observations of the total solar cclipse on May 29, 1919, at Cape Palmas, Liberia: L. A. BAUER. Hypersensitizing commercial panchromatic plates:

S. M. Burka. (Introduced by C. C. Kiess.)
Some recent developments in the study of SS Cygni: LEON CAMPBELL.

The spectra of variable stars of long period: ANNIE J. CANNON.

Atmospheric refraction near the horizon: George C. Comstock.

Studies of class B spectra having hydrogen emission; R. H. Curtiss.

Fluctuations in the moon's longitude in relation to meteorological variations: RALPH E. DELURY.

Apparent relation between Chinese earthquakes and California tree growths, 0-1680 A.D.: RALPH E. DELURY.

Levels of the Great Lakes in relation to numbers of sun-spots: RALPH E. DELURY.

Simultaneous spectroscopic observations of the rate of rotation in north and south solar hemispheres: RALPH E. DELURY.

The periodograph and its application to variable star periods and other problems: A. E. Douglass. On the eclipsing variables RT Persei and U Cephei: R. S. DUGAN.

Preliminary results of a comparative test of the 100-inch and 60-inch telescopes of the Mount Wilson Observatory: George E. HALE.

Rates of the standard sidereal clocks at the U.S. Naval Observatory: J. C. HAMMOND AND C. B. Watts.

Note on the spectrum of Nova Aquilæ No. 3: W. E. HARPER

The orbit of the spectroscopic binary i Delphini: W. E. HARPER.

The orbit of the spectroscopic binary Boss 4507: W. E. HARPER.

A desideratum in solving Kepler's problem: H. A. HOWE.

The red and infra-red arc spectra of eight elements: C. C. Kiess and W. F. Meggers.

Color-index of planets: EDWARD S. KING. Photographic observations of the Great Nebula in

Orion: C. O. LAMPLAND. Star tables good to the year 2000 for civil engineers

and navigators: H. C. LORD.

Origin of the sun's heat: W. D. MACMILLAN. False spectra produced by gratings: W. F. Meggers, C. C. Kiess and F. M. Walters, Jr. Evidences of change in coronal structure during the eclipse of June 8, 1918: J. A. MILLER.

The masses of 32 visual binary stars: J. A. MILLER AND J. H. PITMAN.

Measures of double stars on photographs: Charles P. OLIVIER.

Shifting absorption at the heads of the brighter helium bands in the spectrum of  $\gamma$  Argus: C. D.

Methods of asteroid observation and reduction: GEORGE HENRY PETERS.

The great eruptive prominences of May 29 and July 15, 1919: Edison Petrit.

Studies in prominence characteristics: Edison PETTIT.

The proper motions and parallaxes of 359 stars in the cluster h Persei: HANNAH STEELE PETTIT.

The spectroscopic orbits and dimensions of the eclipsing variables U Ophiuchi, RS Vulpeculæ, and TW Draconis: J. S. Plaskett.

Report on progress of work with the 72-inch telescope: J. S. Plaskett.

Annular eclipse of the sun of 1919, November 22, as visible in the United States: WM. F. RIGGE.

Direct micrometrical observations of the sun: E. D. ROE, JR.

The spectrum of the milky way: V. M. SLIPHER.

All-American time: Elliott Smith.

Progress in photo-electric photometry: JOEL STEB-BINS.

Peirce's criterion: R. M. Stewart.
The treatment of discordant observations: R. M. STEWART.

Tests of dyes for red and infra-red photography: FLORENCE J. STOCKER.

Experiments with Kapteyn's method for reducing guiding error: R. TRÜMPLER AND FRANK SCHLESINGER.

Meridian circle observations of Nova Aquilæ No. 3: R. H. TUCKER.

The use of semi-absolute photographic positions in double star astronomy: George Van Bies-

Note on proper motions of certain long period variable stars: Anne S. Young and Louise F. JENKINS.

Three spectroscopic binary orbits: REYNOLD K. Young.

JOEL STEBBINS. Secretary

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